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ABSTRACT

The glossary is one of twenty in various subject areas of vocational education designed to assist the student in vocabulary mastery for particular vocational education courses. They are part of the Vocational Reading Power Project, Title III, E.S.E.A. This glossary is for a course in welding. It is divided into two parts: one provides the student with two definitions for each term listed; the second part lists the same words with space for the student's definition. It is intended that upon completion of the course, mutually agreeable definitions for each term will be arrived at by the instructor and the students. These definitions will be made available to future students taking the course. (AG)

WELDING
Glossary of Key Words

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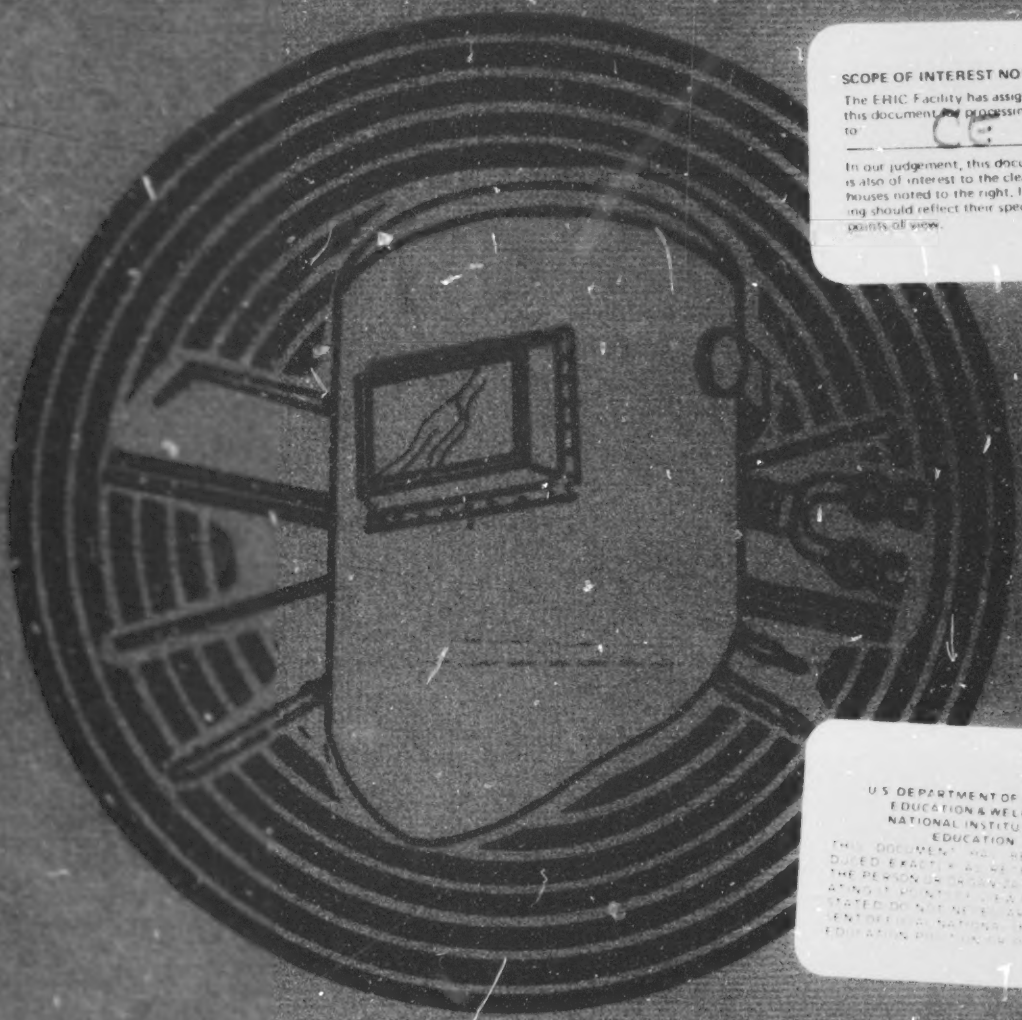

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To The Student

This Glossary of Key Words was prepared to help you in your course. The words that follow were judged by your instructor to be the most important for you to understand.

Directions

The Glossary is divided into two parts. The first part lists the key words at the left side of the page. Across from the key words are two definitions for that word. The "A" definition is more difficult and specific. The "B" definition is easier and more general. During a learning activity, you are to use both definitions to help you understand. After the learning activity, you are to write your definition of the word as you understand it.

The second part just lists words. There is space for you to write your understanding of those words. Also, at the end of the booklet are blank lines. Here, you and your instructor will list and define the words which were left out.

At the end of the course, your definitions and the instructor's definitions will be joined together. These will be printed and given to the students who come after you have graduated. It is hoped that, with your help, the future students of vocational education will be greatly benefited.

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a) PRIMARY
b) SECONDARY

A/C

a) That kind of electricity which reverses its direction of electron flow regularly and periodically. The period of alternating depends upon the cycle of current. For 60-cycle current, the current goes in one direction and then in the other direction 60 times in the same second so the current changes its direction 120 times in one second.
b) A kind of electric current used in welding. It is used to operate machines designed to run on this type of current.

ACETYLENE

a) Gas composed of two parts of carbon and two parts of hydrogen. When burned in an atmosphere of oxygen, it produces one of the highest flame temperatures obtainable.
b) A gas commonly used for welding and cutting. It burns to produce one of the hottest flames.

ADHESION

a) A condition in a weld resulting from imperfect fusion of the edges to be joined. It is caused by the adding of molten metal onto metal already solidified or to the lack of fluidity in the molten bath constituting the weld with the results that fusion is not attained.
b) To stick or cling.

ALLOY

a) An intimate mixture of two or more metals.
b) An alloy steel is a steel to which one or more special elements has been added. The addition of these elements gives steel greater physical properties.

ANNEALING

a) Softening metal by heat treatment. This most commonly consists of heating the metal up to a critical temperature and then cooling them slowly.
b) A way to soften metal by heating and slow cooling.

BACKFIRE

a) A short "pop" of the torch flame followed by the extinguishing of the flame or continued burning of the gases.
b) When the flame goes out with a loud "pop".

BEVEL

a) An angling of a metal edge where welding is to take place. This may be a straight edge surface or a J-shaped edge surface.
b) An edge preparation used on thick metal. The edges are cut off on an angle to make the metal thinner for melting when welding.

A/C

ACETYLENE

ADHESION

ALLOY

ANNEALING

BACKFIRE

BEVEL

a) PRIMARY
b) SECONDARY

BRAZE	a) Making an adhesion groove, fillet or plus connection with a brazing alloy. b) A connection made on metal parts that does not require the base metal to melt.
BRAZING	a) Making an adhesion connection with a minimum of alloy which melts above 800 degrees Fahrenheit and which flows by capillary between close-fitting parts. b) A group of joining processes for connecting metal parts that does not melt the metal.
BUILDUP	a) Amount a weld face extends above the surface of the metals being joined. b) Adding layer on layer of weld metal so as to make the metal thicker.
CAPILLARY	a) Property of a liquid to move into small spaces if it has the ability to "wet" these surfaces. b) Liquid being able to move uphill against the forces of gravity.
CHAMFER	a) The contour prepared on the edge of a member for welding. b) To put a sloping edge or step on a piece of metal.
CIRCUIT	a) A closed loop or returning to the starting point. b) A path along which electricity can flow.
CLASSIFICATION	a) To arrange in class. b) To be able to identify.
COATED ELECTRODE	a) A metal rod used in arc welding which has a covering of materials to aid arc welding process. b) Metal rods covered with a material that burns off during welding. The burning makes a gas that protects the melted metal.
COHESION	a) Intimate mixing of molten metals. b) United together as one.
CONDUCTOR	a) A material or substance which allows an electric current to flow through it. b) A material along which a path of electricity flows.
CRACKING	a) Opening and closing the valve quickly. b) Blowing dust or dirt out of a valve.
CRATER	a) A depression in the face of a weld, usually at the termination of an arc weld. b) The low spot in the weld bead end.

BRAZE

BRAZING

BUILDUP

CAPILLARY

CHAMFER

CIRCUIT

CLASSIFICATION

COATED ELECTRODE

COHESION

CONDUCTOR

CRACKING

CRATER

a) PRIMARY
b) SECONDARY

CYLINDER

a) A portable cylindrical container used for transporting and storage of a compressed gas.
b) A container used to hold gases used in welding.

D/C

a) Electrons in a current moving in the same direction all times.
b) That kind of electric current which flows only in one direction.

DISTORTION

a) Warping a structure.
b) Twisting or bending of metal so that it is out of a wanted shape.

DOWNHAND

a) A horizontal weld on the upper side of a horizontal surface.
b) Flat position welding.

DRAG

a) The amount by which the bottom of the cut lags behind the top.
b) When cutting with a torch, the bottom of the metal does not melt off as fast as the top of the metal. The distance between the metal being cut on the top and bottom is called drag.

EDGE JOINT

a) Joint formed when two pieces of metal are lapped with at least one edge of each at an edge of the other.
b) A joint between the edges of members laying side by side.

ELECTRODE

a) A substance which brings electricity up to the point where the arc is to be formed; in other words, it is the material immediately adjacent to the arc proper and the one which carries the current to this point. In electric arc welding, the electrode is usually melted and becomes a part of the weld.
b) A metal that permits electricity to flow through it. This metal may burn off and become part of the weld.

ELECTRODE HOLDER

a) A device used for holding the electrode mechanically.
b) A holder is a handle-like tool that holds the electrode during welding. The handle is attached to the welding machine by a cable.

FILLET

a) Weld metal in the internal vertex, or corner, of the angle formed by two pieces of metal, giving the joint additional strength to withstand unusual stresses.
b) A weld deposit used to join pieces of metal.

CYLINDER

D/C

DISTORTION

DOWNHAND

DRAG

EDGE JOINT

ELECTRODE

ELECTRODE HOLDER

FILLET

a) PRIMARY
b) SECONDARY

FILTER

a) A specially treated glass through which a welder may look at an intense flame without being injured by the harmful rays or glare, radiating from this flame.
b) A colored glass used in goggles, helmets and hand shields to exclude harmful light rays.

FLASH

a) The molten metal which is expelled or which is squeezed out by the application of pressure and solidifies around the weld.
b) That metal which is not needed to make a weld when resistance welding. It is pushed out of the weld joint when pressure is applied.

FLASHBACK

a) A recession of the flame into or back of the mixing chamber of the torch.
b) A burning flame inside the torch.

FLUX

a) A chemical used to promote fusion of metals during a welding process.
b) A cleaning agent.

FUSION

a) Intimate mixing of molten metals.
b) The melting together of the filler metal and the base metal.

GAS POCKET

a) Cavities in weld metal caused by entrapped gas.
b) Porosity.

GOUGING

a) Cutting a groove in the surface of a metal using a gas-cutting torch of an arc-air cutting outfit.
b) Metal removal using electricity.

GROOVE WELD

a) A welding rod fused into a joint which has the base metal removed to form a V, U, or J trough at the edge of the metal to be joined.
b) A weld made in the groove between two members to be joined.

HARDNESS

a) Property of metals rendering them resistant to the action of cutting tools.
b) The ability to resist penetration by another metal.

HEAT-AFFECTED ZONE

a) That part of the base metal which has been altered by the heat from the welding, brazing or cutting operation.
b) The metal on both sides of the weld bead. It is raised to a very high temperature during welding. The sudden raise in temperature and cooling may leave this metal with less strength than the weld metal.

FILTER

FLASH

FLASHBACK

FLUX

FUSION

GAS POCKET

GOUGING

GROOVE WELD

HARDNESS

HEAT-AFFECTED ZONE

a) PRIMARY
b) SECONDARY

HELIUM

a) An inert gas used extensively for inflating balloons because of its lightness, it is next to hydrogen in this respect, and it is non-inflammable. Its non-inflammable characteristics make it an important gas for use in the arc welding of magnesium.
b) A gas used to shield the molten weld pool and the tungsten electrode when T.I.G. welding.

HELMET

a) A protecting hood which fits over the arc welder's head, provided with a lens of safety glass through which the operator may safely observe the electric arc.
b) A device mounted on the welder's head for protecting the head and eyes from the harmful light rays of the arc.

HORIZONTAL POSITION

a) A weld performed on a horizontal seam at least partially on a vertical surface.
b) A position in which weld metal is deposited.

HOSE

a) Flexible medium used to carry gases from regulator to the torch. It is made of fabric and rubber.
b) A cutting or welding torch is connected to the gas supply by means of a round hose. This hose should be built to overcome the pressure of the gas. It must stand up under constant bending and twisting.

HYDROGEN

a) A gas formed of the single element hydrogen. It is considered one of the most active gases. When combined with oxygen, it forms a very clean flame which, however, does not produce a very high temperature or very much heat.
b) A gas commonly used in welding. It produces a low temperature flame.

IMPURITIES

a) Characterized by an intermixture of foreign elements.
b) Unwanted particles found in a weld metal deposit.

INCLUSION

a) Entrapped particles of slag and dirt occurring in welds or metal. These particles being mechanically held during solidification.
b) Particles that did not melt during the melting of the metal. These particles were trapped in the molten metal as it becomes solid.

HELIUM

HELMET

HORIZONTAL POSITION

HOSE

HYDROGEN

IMPURITIES

INCLUSION

a) PRIMARY
b) SECONDARY

INERT	a) Surrounding the arc with a gas which does not react with the electrode and base metal and keeps the atmosphere away from the arc. b) Making an atmosphere that does not have active properties.
INSPECT	a) To view closely and critically. b) To look for bad spots in a weld.
INTERMITTENTLY	a) Coming and going at intervals. b) Joining two pieces of metal and leaving unwelded sections in the joint.
IONIZED	a) To render or become conducting. b) Making a path for electricity to follow.
JOINT	a) Where two pieces meet when a structure is made of smaller pieces. b) The joining of two or more pieces of metal by some welding process.
KERF	a) The slit or notch made in cutting. b) The space from which metal has been removed by a cutting process.
KNEE	a) Something suggestive of the human knee, especially when bent as a crook in a tree branch. b) The bottom support of a spot-welding machine.
KVA	a) A measure of apparent electrical power made up of two components, an energy component and a wattless or induction component. b) An electrical rating of resistance-welding machines.
LANCE	a) To open with a long shaft. b) The oxygen lance is a means of cutting heavy sections of steel.
LAP	a) A surface defect which appears primarily in sheets and plats as a seam caused from folding over hot metal, fins or sharp corners and then rolling them into the surface. b) A surface defect in sheet steel.
LAYER	a) A stratum of weld metal consisting of one or more weld beads. b) Weld metal thickness made of one or more passes.
LENS	a) A specially treated glass through which a welder may look at an intense flame without being injured by the harmful rays or glare, radiating from this flame. b) A shaded glass used to protect a person's eyes from the welding flame.

INERT

INSPECT

INTERMITTENTLY

IONIZED

JOINT

KERF

KNEE

KVA

LANCE

LAP

LAYER

LENS

a) PRIMARY
b) SECONDARY

LOCAL	a) Characterized by relating to or occupying a particular place or places; not general or widespread. b) In the immediate area.
MAGNESIUM	a) A light, white, hard and fairly tough metal not found in the free state. It is found in sea water. b) A light metal found hard to weld by ordinary welding equipment.
MAGNETIC	a) The attraction between magnetic poles producing magnetism in a material brought near a magnetic field. b) Being able to act like a magnet.
MANUAL	a) Pertaining to the hand or hands. b) Welding that is done by hand. In gas welding, the torch is moved by hand.
MAP	a) A stabilized methyl acetylene-propadine fuel gas. It is a Dow Chemical Company product. b) A gas used in place of acetylene.
M.I.G	a) Welding by feeding a consumable wire electrode through a shielding gas. The shielding gases are usually argon or helium. b) A term used to describe gas metal arc welding.
MILD	a) Soft, malleable, as mild steel. b) A steel that is easy to weld.
NEOPRENE	a) A synthetic rubberlike plastic formed by the polymerization of chloroprene. b) A material used for gaskets and O-rings in welding torches and regulators.
NEUTRAL	a) Flame which results from combustion of perfect proportions of oxygen and the welding gases. b) A gas welding flame that does not have bad effects with the molten metal.
NITRIDES	a) A binary compound of nitrogen with a more positive element and other metals. b) A harmful compound formed during welding under bad conditions.
NITROGEN	a) A colorless gaseous element, tasteless and odorless, constituting about 4/5 of the atmosphere by volume. b) A gas that produces bad welds when it comes in contact with molten metal.

LOCAL

MAGNESIUM

MAGNETIC

MANUAL

MAP

M.I.G.

MILD

NEOPRENE

NEUTRAL

NITRIDES

NITROGEN

a) PRIMARY
b) SECONDARY

NONFERROUS

a) Not containing, including or pertaining to iron; relating to metals other than iron.
b) Metals containing no iron. Copper, brass, bronze, aluminum and lead are examples.

NOZZLE

a) Part of the torch at the end where the gas burns, producing the high temperature flame.
b) The end piece of a welding torch or cutting attachment.

NUGGET

a) The fused metal zone of a resistance weld; a term most commonly applied to spot welds.
b) The fused metal in a resistance weld.

ORIFICE

a) Opening through which gases flow. It is usually the final opening or any opening controlled by a valve.
b) A hole of a certain size.

OSCILLATING

a) To swing back and forth.
b) A way of moving the electrode in forming a weld metal deposit.

OVERHEATING

a) A term applied to metal which has been heated to such high temperature as to cause grain growth to occur, yet not heated sufficiently high to cause partial meeting.
b) Heating to a temperature that will leave bad effects in the metal.

OVERLAP

a) Extension of the weld face metal beyond the toe of the weld.
b) Excessive metal buildup at the edge of the weld bead.

OXIDE

a) A term usually applied to rust, corrosion coating, film or scale.
b) Harmful compounds formed during bad welding conditions.

OXIDIZING

a) Combining oxygen with any other substance. For example, a metal is oxidized when the metal is burned, i. e. oxygen is combined with all the metal or parts of it.
b) A flame produced by an excess of oxygen in the torch mixture. This free oxygen burns the molten metal.

OXYACETYLENE

a) The flame produced by the combustion of a mixture of oxygen and acetylene in various portions.
b) A method of welding using oxygen and acetylene as a fuel.

NONFERROUS

NOZZLE

NUGGET

ORIFICE

OSCILLATING

OVERHEATING

OVERLAP

OXIDE

OXIDIZING

OXYACETYLENE

a) PRIMARY
b) SECONDARY

OXYFUEL

a) A gas welding process wherein the welding heat is obtained from the combustion of oxygen and any fuel gas other than acetylene.
b) Any gas that uses oxygen from a cylinder as a supporter of combustion which can be used for welding.

PEENING

a) The mechanical working of metal by means of hammer blows. These blows may be administered manually or by pneumatic tools.
b) Working the metal by hammering to obtain some desired physical property of the metal.

PENETRATION

a) The depth of fusion of a weld from the original surface of the base metal to that point at which fusion ceases.
b) The distance fusion goes into the metal as measured from the surface of the base metal.

PIERCE

a) Producing a hole in metal by forcing an instrument through it.
b) To make a hole.

PLASMA

a) The plasma arc or jet is a result of heating electrically any plasma-forming gas, e. g. nitrogen, hydrogen, etc., to such high temperatures that its molecules become ionized atoms containing high energy.
b) Flowing heat gas.

PLASTIC

a) Capable of being deformed continuously and permanently in any direction without rupture.
b) When metal is heated to a high temperature, it can be formed or bent into shape. The temperature at which it can be done is called the plastic temperature. In other words, the metal has reached to plastic range.

POLARITY

a) The terms electrode positive and negative are commonly used to indicate polarity. The terminal from which the current passes to the arc is termed the positive electrode or the anode and the terminal to which the current passes from the arc is called the negative or cathode.
b) The direction in which the electric current flows. The two types of polarity used in welding are positive and negative polarity.

RECTIFIER

a) A material that filters out the negative half-cycle of A/C current, i. e. it passes only the positive portion of the A/C current.
b) A device for changing alternating current into direct or continuous current.

OXYFUEL

PEENING

PENETRATION

PIERCE

PLASMA

PLASTIC

POLARITY

RECTIFIER

a) PRIMARY
b) SECONDARY

RESISTANCE	a) That which regulates the flow of current. b) The property of a body which resists or limits the flow of electricity passing through it.
RHEOSTAT	a) A resistor for regulating a current by means of variable resistances. b) A device that allows a desired amount of electricity to flow. The amount can be selected as needed.
SCALE	a) A term sometimes applied to the surface coating of oxide on molten iron or steel. b) A protective blanket that covers molten metal. This blanket keeps oxygen away from the liquid steel.
SECONDARY	a) The circuit that recieves power from another circuit called the primary. For example, the secondary side of a transformer. b) The secondary reduces a high voltage to a low value voltage for welding.
SEQUENCE	a) The order of events in time. b) An order in which operations take place.
SEMIAUTOMATIC	a) Arc welding with equipment which controls only the filler metal feed. The advance of the welding is manually controlled. b) A weld made partially by automatic equipment and partially by manual means.
TEMPERING	a) The reheating of iron base alloys after hardening to some temperature below the critical range followed by any desired rate of cooling. b) Softening steel by heating and cooling so that it will not fail without warning of failure.
TORCH	a) The mechanism which the operator holds during gas welding and cutting at the end of which the gases are burned to perform the various gas welding and cutting operations. b) A tool used for welding or cutting.
TRANSFORMER	a) Changes electric power from one voltage to another with an inverse ratio change in amperage while maintaining the same frequency. b) A device used to change alternating current from one voltage to another.

RESISTANCE

RHEOSTAT

SCALE

SECONDARY

SEQUENCE

SEMIAUTOMATIC

TEMPERING

TORCH

TRANSFORMER

NEED TO KNOW WORDS

Acetone_____

_____

Acetylene Cylinder_____

_____

Acetylene Cylinder Value_____

_____

Acetylene hose_____

_____

Acetylene-in-air-flame_____

_____

Acetylene Regulator_____

_____

Acetylene Torch Value_____

_____

Air-Acetylene_____

_____

Alignment_____

_____

Alloy Steels_____

_____

Aluminum

Aluminum Arc Welding

Aluminum Joint Design

American Welding Society

Amperage

Angular Distortion

Arc Burn

Arc Length

Arc Welding

Arc Welding Joints

Arc Welding Machine

Arc Welding Positions

Argon

Argon-Helium Regulator

Arrow

Asbestos

Backing

Backstep Welding

Balanced Pressure Torch

Base Metal

Bead

Beading

Bevelling

Bit

Blowhole

Blowpipe

Bond

Bottle

Boxing

Brass

Brazability

Brazement

Brazer

Braze Welding

Braze Welding Rod

Braze Welding Torch

Brittle

Bronze

Bronze Surfacing

Bronze Welding

Burner

Burning

Button

Cables

Calcium Carbide

Carbon

Carbon Plate

Carburizing

Cast Iron

Cast Iron Joint

Cast Steel

Cast Welding

Centre Punch

Chamfering

Chart

Chemical Reaction

Circle Cutting

Classing

Coalescence

Coating

Collar

Collet

Collet Assembly

Colour

Colour Code

Columbium

Combustion _____

_____

Commutator _____

_____

Concave _____

_____

Concavity _____

_____

Cone _____

_____

Connector _____

_____

Constant Voltage Machine _____

_____

Contactor _____

_____

Contamination _____

_____

Contraction _____

_____

Convex _____

_____

Convexity

Cooling System

Copper

Corner

Corona

Corrosion

Corrosive Action

Crack

Cracking Cylinder Value

Crackling

Cup

Current Comparison

Cutting a Circle

Cutting Application

Cutting Chart

Cutting Fault

Cutting Lever

Cutting Pressure

Cutting Speed

Cylinder Value

Downhand Fillet Weld

Drum

Duty Cycle _____

_____

Ductility _____

_____

Edge _____

_____

Electric Shock _____

_____

Electrode Size _____

_____

Electrode Studs _____

_____

Electrolytic Action _____

_____

Equal Pressure Torch _____

_____

Excess Acetylene Flame _____

_____

Expansion _____

_____

Eye Flash _____

_____

Flick

Flo

Flowability

Flowmeter

Flux

Forge

Freehand Cutting

Freezing

Frequency

Friction Lighter

Fundamental

Galvanized Iron

Gas

Gauge

Generator

Gloves

Goggles

Gun

Hard Soldering

Heat Concentration

High-Carbon Steel

Hissing Sound

Horizontal

Horn

Impulse

Indentation

Injector Torch

Insulation

Insulator

Iron

Iron Powder Electrodes

Land

Laterial Distortion

Lead

Leak

Leg

Liquidation

Liquid

Liquid Air Process

Liquid Oxygen

Liquids

Low-Carbon Steel

Low Hydrogen Electrode

Low Temperature Brazing

Malleable Iron Welding

Manipulation

Manifold System

Medium Carbon Steel

Medium Pressure Torch

Metal Arc Inert Gas

Metal Identification

Metal Thickness

Metering Regulator

Method

M.I.G. Electrodes

Midpoint

Mixing Head

Molton

Molybdenum

Monel Metal

Multi Pass

Needle Value

Nickel

Nonconsumable

Nondestructive Test_____

_____

Nonferrous Welding_____

_____

Nonfusion_____

_____

Notched Butt Joint_____

_____

Nozzle Settings_____

_____

Numbering System_____

_____

Out-of-Position Welding_____

_____

Overhead Position Weldings_____

_____

Oxy-Acetylene Safety_____

_____

Oxy-Acetylene Cutting Torch_____

_____

Oxy-Acetylene Cutting Equipment_____

_____

Oxy-Acetylene Flame_____

_____

Oxy-Coal Gas Flame_____

_____

Oxidation_____

_____

Oxidizing Flame_____

_____

Oxygen_____

_____

Oxygen Cylinder_____

_____

Oxygen Cylinder Value_____

_____

Oxygen Hose_____

_____

Oxygen Regulator_____

_____

Oxygen Torch Value_____

_____

Padding_____

_____

Parallel Beads

Pass

Pig Iron

Platen

Poles

Porosity

Position

Powder Lance

Preform

Preheat

Pressure-Adjusting Screw _____

_____

Pretinning _____

_____

Procedure _____

_____

Process _____

_____

Protection _____

_____

Pulse _____

_____

Pure Metal _____

_____

Qualification _____

_____

Reactor _____

_____

Rebuild _____

_____

Regulator _____

_____

Reference Line

Reinforcement

Rim

Rods

Root

Running a Bead

Rust

Safety

Scarf

Scarfing

Scratching

Seam

Severing

Sheet Vee Joint

Shielding Gas

Shoulder

Silver

Silver Brazing

Silver Soldering

Single Bead

Single State Regulator

Single Vee Butt Joint

Skull

Slag

Slugging

Solder

Solderability

Soldering

Solidus

Sound Test

Spark

Spool

Spot

Stainless Steel _____

_____

Sterling Silver _____

_____

Stethescope Test _____

_____

Strength _____

_____

Striking the Arc _____

_____

Stopoff _____

_____

Stringy _____

_____

Strongback _____

_____

Studding _____

_____

Surfacing _____

_____

Symbols _____

_____

Tantalum

Tail

Taps

Tapping

Tee Assemblies

Temperature

Temperature Indicator

Tensile Strength

Test

Thread

Three Pass Horizontal Fillet Weld

Three Pass Downhand Fillet Weld

Thorium

T.I.G. Electrodes

T.I.G. Torch

T.I.G. Welding

Tin

Tinning

Titanium

Toe

Toxic

Trigger

Tungsten

Tungsten Inert Gas

Tow Stage Regulator

Ultra Violet Rays

Undercut

Undercutting

Underfill

Unwelded Joint

Valve

Vanadium

Vee

Veeing

Veed Butt Joint

Vise

Voltage

Voltmeter

Weld

Weldability

Welder

Welding Characteristics

Welding Position

Welding Symbols

Weight

Wetting

White Metal

Wrought Iron

Zirconium

Zinc Oxide

CLUSTER WORDS

Abrasion Soldering

Actual Throat

Accelerating Potential

Accelerating Potential Acid Core Solder

Accelerating Potential Activated Rosin Flux

Air-Acetylene Welding (AAW)

Air Carbon-Arc Cutting (AAC)

All-Weld-Metal Test Specimen

Alternate Polarity Operation

Angle-of-Bevel

Arc Blow

Arc Brazing

Arc Cutting (AC)

Arc Force

Arc Gouging

Arc Oxygen Cutting

Arc-Seam Weld

Arc-Seam Welding

Arc-Spot Weld

Arc-Spot Welding

Arc-Time

Arc Voltage

Arc Welding

Arc Welding Electrode

As Brazed

As Welded

Atomic-Hydrogen Welding (AHW)

Automatic Brazing

Automatic Gas Cutting

Automatic Oxygen Cutting

Automatic Welding

AWS (American Welding Society)

Axis-of-Weld

Back Bead

Backhand Welding

Backing Bead

Backing Fillet Metal

Backing Pass

Backing Ring

Backing Strap

Backing Strip

Back Pass

Backstep Sequence

Back Weld

Bare Electrode

Bare Metal-Arc Welding (BMAW)

Base Metal

Base Metal Test Specimen

Bead Weld

Blacksmith Welding

Blind Joint

Block Brazing (BB)

Block Sequence

Bond Line

Burning In

Burnoff Rate

Burn-Thru

Burn-Thru Weld

Butt Weld

Butt Joint

Capillary Attraction

Carbon-Arc

Carbon-Arc Cutting (CAC)

Carbon-Arc Welding (CAW)

Carbon Dioxide

Carbon Electrode

Carbon Electrode Arc Welding

Carbonizing Flame

Carburizing Flame

Cascade Sequence

Caulk Weld, Chemical Flux Cutting (FOC)

Chain Intermittent Fillet Welding

Chill Ring

Chill Time

Circular Electrode

Circular Resistance Seam Welding

Circumferential Resistance Seam Welding

Clad Brazing Sheet, Closed Joint

Coil Without Support

Coil With Support

Cold Soldered Joint

Cold Welding (CW)

Commutator-Controlled Welding

Complete Fusion

Complete Joint Penetration

Complete Penetration

Composite Electrode

Composite Joint

Concave Fillet Weld

Concave Root Surface

Concurrent Heating

Constant Voltage

Consumable Guide Electroslag Welding

Consumable Insert

Contact Tube

Continuous Sequence

Continuous Weld

Convex Fillet Weld

Cool Time

Copper Brazing

Cored Solder

Corner-Flange Weld

Core Wire

Corner Joint

Corrosive Flux

Cover Glass

Covered Electrode

CO^2 Welding

Crater Crack

Cross Wire Weld

Current Regulator

Cutting Attachment

Cutting Process

Cutting Nozzle

Cutting Tip

Cutting Torch

Cylinder Manifold

Deposit Sequence

Deposit Metal

Deposition Efficiency

Deposition Rate

Deposition Sequence

Depth of Fusion

Die Welding (DW)

Diffusion Aid

Diffusion Welding (DFW)

Dip Brazing (DB)

Dip Soldering (DS)

Dissociated Ammonia Brazing

Doped Solder

Double-Bevel Groove Weld

Double-Flare-Bevel-Groove Weld

Double-Flare-Vee-Groove Weld

Double-J Groove Weld

Double-U Groove Weld

Double-Vee Groove Weld

Double-Welded Joint, Downslope Time

Double-Welded Joint, Drop-Thru

Drive Wheels

Dynamic Electrode Force

Edge-Flange Weld

Edge Preparation

Edge Weld

Effective Length of Weld

Electric Brazing

Electrode Force Dynamic

Electrode Force Theoretical

Electrode Force Static

Electrode Lead

Electrode Skid

Electrolytic Process

Electrogas Welding

Electron Beam Welding (EBW)

Electronic Heat Control

Electroslag Welding

Emissive Electrode

End Return

Erosion

Explosion Welding (EXW)

Face Feed

Face Reinforcement

Face of Weld

Face Shield

Faying Surface

Filler Metal

Fillet Weld Size

Flame Cutting

Flame Gouging

Flange Weld

Flare-Bevel-Groove Weld

Flare-Vee-Groove Weld

Flash Butt Welding

Flashing Time

Flash-Off Time

Flat Position

Flow Brazing (FLB)

Flow Point

Flow Welding (FLOW)

Flux Cored Arc Welding (FCAW)

Flux Coated Electrode

Flux Cover

Flux Oxygen Cutting

Focal Point

Forehand Welding

Forge-Deley Time

Forge Welding (FOW)

Forge Welding Die

Freezing Point

Friction Soldering

Friction Welding (FRW)

Full Fillet Weld

Furnace Brazing

Fused Zone

Fusible Solders

Fusion Welding

Fusion Zone

Gas Brazing

Gas Carbon-Arc Welding (GCAW)

Gas Cutting

Gas Cutter

Gas Gouging

Gas Metal Arc Cutting

Gas Metal Arc Cutting (GMAW)

Gas Pocket

Gas Regulator

Gas-Shielded Arc Welding

Gas-Shielded Stud Welding

Gas Torch

Gas Tungsten-Arc Cutting (GTAC)

Gas Tungsten-Arc Welding (GTAW)

Gas Welding

Generated Acetylene

Globular Transfer

Groove Angle

Groove Face

Groove Radius

Ground Connection

Ground Lead

Gun Arc Welding

Gun Resistance Welding

Hammer Welding (HW)

Hand Shield

Hard Solder

Hard Surfacing

Heat Time

Heat Gate

Hold Time (Spot & Projection Welding)

Hold Time (Seam, Flash & Upset Welding)_____

_____

Horizontal Fixed Position Pipe Welding_____

_____

Horizontal Position Fillet Weld_____

_____

Horizontal Rolled Position Pipe Welding_____

_____

Horn Spacing_____

_____

Hydrogen Brazing_____

_____

Hydrogen Welding_____

_____

Hydromatic Welding_____

_____

Impregnated-Tape Metal-Arc Welding_____

_____

Inadequate Joint Penetration_____

_____

Included Angle_____

_____

Incomplete Fusion

Induction Brazing (IB)

Induction Soldering (IS)

Induction Welding (IW)

Induction Work Coil

Inert-Gas Carbon-Arc Welding

Inert-Gas Metal-Arc Welding

Inert Gas Tungsten Arc Welding

Infrared Brazing (IRB)

Intergranular Penetration

Intermediate Flux

Intermitted Weld

Interpass Temperature

Interpulse Time

Interrupted Spot Welding

Joint Brazing Procedure

Joint Clearance

Joint Design

Joint Efficiency

Joint Geometry

Joint Penetration

Joint (unwelded)_____

_____

Joint (welded)_____

_____

Joint Welding Procedure_____

_____

Joint Welding Sequence_____

_____

Lack of Fusion_____

_____

Lack of Penetration_____

_____

Lap Joint_____

_____

Laser Beam Cutting (LBC)_____

_____

Laser Beam Welding (LBW)_____

_____

Lead Angle_____

_____

Lead Burning

Leg Length

Leg of a Fillet Weld

Lightly Coated Electrode

Liquid Air

Local Preheat

Local Stress-Relief Heat Treatment

Locked-Up Stresses

Longitudinal Resistance Seam Welding

Longitudinal Sequence

Low Frequency Cycle

Machine Brazing

Machine Oxygen Cutting

Machine Welding

Manual Brazing

Manual Oxygen Cutting

Mash Resistance Seam Weld

Melting Range

Melting Rate

Melting Ratio

Melt-Thru

Metal-Arc Cutting (MAC)

Metal-Arc Welding

Metal Electrode

Metal-Electrode Arc Welding

Metal Powder Cutting (POW)

MIG Welding

Metallic Arc

Mixing Chamber

Molten Chemical-Bath Dip Brazing

Multiple-Impulse Welding

Multiple-Impulse Weld Timer

Nonpressure Thermit Welding (NTW)

Nonpressure Welding

Nonsynchronous Initiation

Nonsynchronous Timing

Off Time

Open Circuit Voltage

Open Joint

Oven Soldering (OS)

Overhead Position

Oxy-Acetylene Cutting

Oxy-Arc Cutting (AOC)

Oxy-Fuel Gas Cutting (OFC)

Oxy-Fuel Gas Welding

Oxy-City Gas Cutting

Oxy-Hydrogen Cutting

Oxy-Hydrogen Welding (OHW)

Oxy-Natural Gas Cutting

Oxy-Propane Cutting

Oxygen Cutter

Oxygen Cutting (OC)

Oxygen-Cutting Operator

Oxygen Gouging

Oxygen Grooving

Oxygen Lance

Oxygen Lance Cutting (OLC)

Oxygen Lancing

Oxygen Machining

Parent Metal

Partial Joint Penetration

Pass Sequence

Paste Brazing Filler Metal

Paste Solder

Pasty Range

Peel Test

Percussion Weld

Percussion Welding (PEW)

Plasma-Arc Cutting (PAC)

Plasma-Arc Welding (PAW)

Platen Force

Platen Spacing

Plus Weld

Poke Weld

Poke Welding

Positioned Weld

Position of Welding

Postheat Current

Postheat Time

Powder Cutting

Postweld Interval

Pressure-Controlled Welding

Pressure Gas Welding (PGW)

Pressure Thermit Welding (PTW)

Pressure Welding

Preweld Interval

Preheat Current

Preheat Temperature

Preheat Time

Progressive Block Sequence

Projection Weld

Projection Welding (PRW)

Protective Atmosphere

Pulsation Welding

Procedure Qualification

Pulsation Weld Timer

Pulse Time

Pulsed Power Welding

Pulsed Spray Welding

Pure Metal

Push Weld

Push Welding

Random Sequence

Rate of Deposition

Rate of Flame Propagation

Reaction Flux

Reaction Soldering

Reaction Stress

Reducing Atmosphere

Reducing Flame

Reference Line

Reinforcement of Weld

Residual Stresses

Resistance Brazing (RB)

Resistance Butt Welding

Resistance Butting Welding

Resistance-Seam Weld Timer

Resistance-Seam Welding (RSEW)

Resistance-Spot Welding (RSW)

Resistance Soldering (RS)

Resistance Welding

Resistance Welding Electrode

Reverse Polarity

Roll Resistance Spot Welding

Roll Welding (RW)

Root Crack

Root Edge

Root Face

Root Gap

Root of Weld

Root of Joint

Root Opening

Root Penetration

Root Radius

Safety Plugs

Salt-Bath Dip Brazing

Sandwich Braze

Scarf Joint

Seal Weld

Seam Weld

Seam Weld Timer

Seam Welding

Secondary Circuit

Selective Block Sequence

Series Welding

Sequence Timer

Sequence Weld Timer

Sheet Separation

Shielded Arc

Shielded Carbon-Arc Welding (SCAW)

Shielded Metal Arc Cutting

Shielded Metal-Arc Welding (SMAW)

Shielded Stud Welding

Short Circuiting Arc Welding

Short Circuiting Transfer

Shrinkage Fit

Shrinkage Stress

Silver Alloy Brazing (Silver Solder)

Silver Solder

Single-Bevel Groove Weld

Single-Flare-Bevel-Groove Weld

Single-Flare-Vee-Groove Weld

Single-Impulse Welding

Single-J Groove Weld

Single-U Groove Weld

Single-Vee Groove Weld

Size of Groove Weld

Size of Fillet Weld

Size of Unequal Leg Fillet Weld

Size of Flange Weld

Skip Sequence

Slag Inclusion

Slot Weld

Soft Solder

Soldering Gun

Soldering Iron

Solid State Welding

Spacer Strip

Spatter Loss

Spot Weld

Spot Welding

Spray Transfer

Square Groove Weld

Sequence Time

Stack Cutting

Staggered Intermitted Fillet Welding

Static Electrode Force

Step Brazing

Step Soldering

Stepback Sequence

Stick Electrode

Stitch Welding Stopoff

Stored Energy Welding

Straight Polarity

Stress-Corrosion Cracking

Stress-Relief Heat Treatment

Stress Cracking

String Beading

Stud Welding (SW)

Submerged Arc Welding (SAW)

Suck-Back

Surfacing Weld

Sweat Soldering

Supplementary Symbols

Synchronous Timing

Tack Weld

Tee Joint

Theoretical Electrode Force

Theoretical Throat

Thermal Stresses

Thermit Crucible

Thermit Mix

Thermit Mold

Thermit Reaction

Thermit Welding (TW)

Throat Depth

Theoretical Throat of a Fillet Weld

Throat Height

Throat of a Grocve Weld

Throat Opening

TIG Welding

Tip Skid

Toe Crack

Toe of Weld

Torch Brazing (TB)

Torch Tip (TT)

Transverse Resistance Seam Welding

Tungsten Electrode

Twin-Carbon-Arc Brazing (TCAB)

Twin-Carbon-Arc Welding (TCAW)

Ultrasonic Coupler

Ultrasonic Soldering

Ultrasonic Sonotrade

Ultrasonic Welding (USW)

Ultra-Speed Welding

Underbead Crack

Unipolarity Operation

Unshielded Carbon Arc Welding

Unshielded Metal Arc Welding

Upset Butt Welding

Upset Weld

Upset Welding (UW)

Upsetting Force

Upsetting Time

Upslope Time

Vacuum Brazing

Vertical Position

Vertical Position for Pipe

Voltage Regulator

Wandering Block Sequence

Wandering Sequence

Wax Pattern

Weave Bead

Weaving

Weld Bead

Weld Crack

Weld Delay Time

Weld Gage

Weld Heat Time

Weld Interval

Weld Interval Timer

Weld Length

Weld Line

Weld Metal

Weld Penetration

Weld Size

Weld Timer

Weld Time

Welded Joint

Welder Certification

Welder Qualification

Welder Registration

Welding Current

Welding Cycle

Welding Electrode

Welding Force

Welding Generator

Welding Goggles

Welding Gun

Welding Ground

Welding Leads

Welding Machine

Welding Operator

Welding Pressure

Welding Procedure

Welding Process

Welding Rod

Welding Sequence

Welding Technique

Welding Tip

Welding Torch

Welding Transformer

Welding Wheel

Welding Wire

Wire Feeder

Wiped Joint

Work Angle

Work Coil_____

_____

Work Connection_____

_____

Work Lead_____

_____

Wrinkle Bending_____

_____